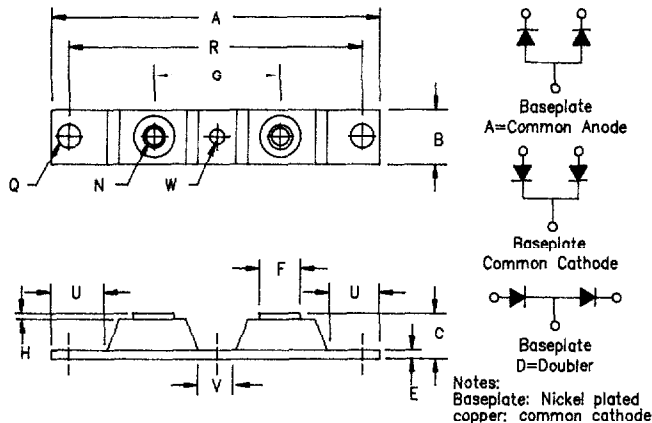


Schottky OR'ing PowerMod CPT20010 & CPT20015



Dim.	Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20	
B	0.700	0.800	17.78	20.32	
C	---	0.625	---	15.87	
E	0.120	0.130	3.05	3.30	
F	0.490	0.510	12.45	12.95	
G	1.375 BSC		34.92 BSC		
H	---	0.050	---	1.27	
N	---	---	---	---	1/4-28
Q	0.280	0.310	6.86	7.11	Dia.
R	3.150 BSC		80.01 BSC		
U	0.600	---	15.24	---	
V	0.330	0.350	8.38	8.89	
W	0.170	0.190	4.32	4.82	Dia.
Y	46.10 BSC		1.815 BSC		

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT20010*	10V	10V
CPT20015*	15V	15V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Low Forward Voltage
- VRRM 10 to 15 Volts
- 150°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics		
Average forward current per pkg	I _{F(AV)} 200 Amps	T _C = 125°C, Square wave, R _{θJC} = 0.25°C/W
Average forward current per leg	I _{F(AV)} 100 Amps	T _C = 125°C, Square wave, R _{θJC} = 0.5°C/W
Maximum surge current per leg	I _{FSM} 2000 Amps	8.3ms, half sine, T _J = 150°C
Maximum repetitive reverse current per leg	I _{R(QV)} 2 Amps	f = 1 KHZ, 25°C, 1 μsec square wave
Max peak forward voltage per leg	V _{FM} .55 Volts	I _{FM} = 200A; T _J = 25°C*
Max peak forward voltage per leg	V _{FM} .40 Volts	I _{FM} = 200A; T _J = 150°C*
Max peak reverse current per leg	I _{RM} 3.0 Amps	V _{RRM} , T _J = 125°C*
Max peak reverse current per leg	I _{RM} 10 mA	V _{RRM} , T _J = 25°C
Typical reverse current per leg	I _{RM} 1.3 mA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 9200 pF	V _R = 5.0V, T _J = 25°C

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	T _{STG}	-40°C to 150°C
Operation junction temp range	T _J	-40°C to 150°C
Max thermal resistance per leg	R _{θJC}	0.5°C/W Junction to case
Max thermal resistance per pkg	R _{θJC}	0.25°C/W Junction to case
Typical thermal resistance	R _{θCS}	0.08°C/W Case to sink
Terminal Torque		50 inch pounds maximum
Mounting Base Torque (outside holes)		40 inch pounds maximum
Mounting Base Torque (center hole)		10 inch pounds maximum
center bolt must be torqued first		
Weight		2.8 ounces (75 grams) typical

Microsemi Corp.
Colorado

CPT20010 & CPT20015



Figure 1
Typical Forward Characteristics - Per Leg

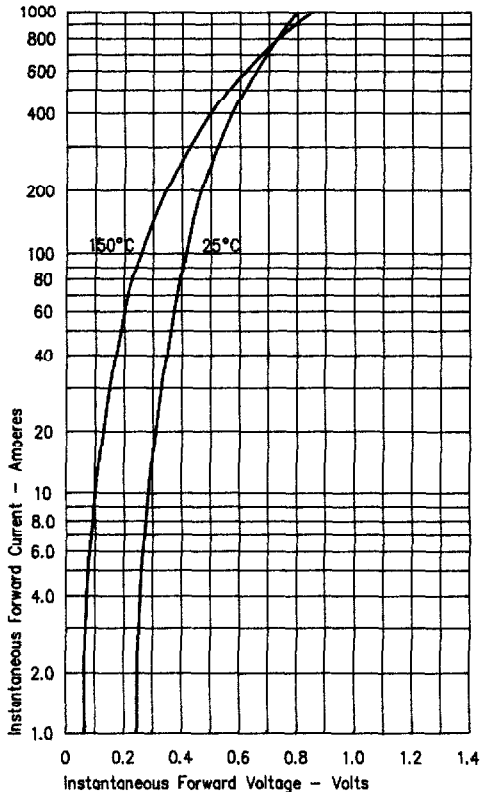


Figure 3
Typical Junction Capacitance - Per Leg

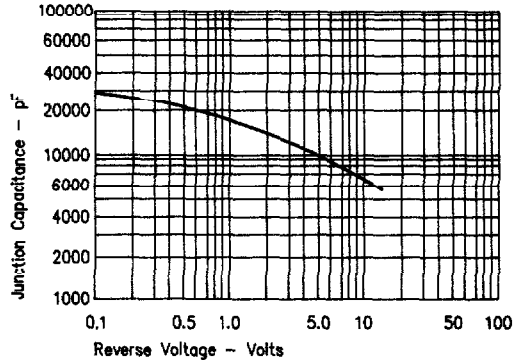


Figure 4
Forward Current Derating - Per Leg

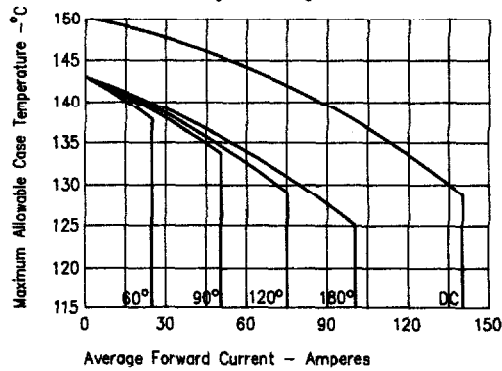


Figure 2
Typical Reverse Characteristics - Per Leg

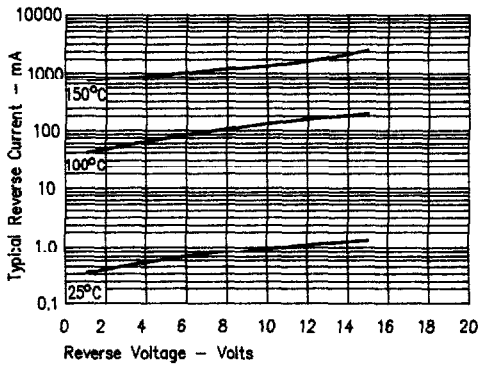


Figure 5
Maximum Forward Power Dissipation - Per Leg

